

IN THE CLAIMS:

1. (Currently Amended) A method of determining the risk of ice deposition due to precipitation, wherein air temperature is measured and a type of precipitation and an amount of precipitation are estimated, ~~characterized in that~~ wherein a measurement is performed for determining the actual amount of ice contained in the precipitation, and ~~that the results from said measurement are combined for determining the~~ risk of ice deposition.

2. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein the type of precipitation is estimated on the basis of a measurement for determining the ratio of liquid to frozen particles contained in the precipitation.

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4. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein a measurement is performed for determining the total equivalent, liquid amount of precipitation.

5. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein the measurement for determining the actual amount of ice contained in the precipitation is performed as a calculation on the basis of dew point measurement.

6. (Currently Amended) A method according to claim 1 ~~or 5~~, ~~characterized in that~~ wherein the measurement for determining the actual

amount ice contained in the precipitation is performed as a measurement of actual ice formation.

7. (Currently Amended) A method according to claim 6, ~~characterized in that~~ wherein the measurement comprises provision of a surface element that has a predetermined surface area and is, during a predetermined period of time, caused to move relative to the atmospheric air, following which the amount of ice accumulated on the surface element during said period of time is measured.

8. (Currently Amended) A method according to claim 6, ~~characterized in th~~ wherein at the temperature of the surface element is caused to correspond essentially to the temperature of the atmosphere.

9. (Currently Amended) A method according to claim 6, ~~characterized in that~~ wherein the temperature of the surface is caused to have another predetermined temperature during said period of time.

10. (Currently Amended) A method according to ~~any one of~~ ~~claims 7-9, characterized in that,~~ claim 9 following measurement of the accumulated amount of ice, a relative movement is briefly provided between the surface element and the atmosphere at a rate that considerably exceeds the rate prior to said measurement, following which a further measurement of deposited ice is performed.

11. (Currently Amended) A method according to ~~any one of claim~~ ~~7-10, characterized in that~~ claim 10, wherein the relative rate between

the surface element and the atmosphere is controlled by controlling the rate of rotation of one or more rotatable surface elements.

12. (Currently Amended) A method according to claim 11, ~~characterized in that~~ wherein the adhesive capacity of the ice is measured by measurement of the accumulated amount of ice following a number of rotations at mutually different rates.

13. (Currently Amended) A method according to claim 11, ~~characterised in that~~ wherein the air resistance between the atmosphere and the ice accumulated on the surface element is measured.

14. (Currently Amended) A method according to ~~any one of claims 7-13,~~ claim 13, wherein anti-icing liquid is applied in a predetermined concentration and a predetermined amount on the surface element before the measurements are performed.

15. (Currently Amended) A method according to ~~any one of claims 1-14~~ claim 14, and wherein a surface is applied with a predetermined type and concentration of anti-icing liquid, ~~characterised in that~~ wherein the risk of ice deposition on the surface is calculated on the basis of knowledge of the type and concentration of the anti-icing liquid; knowledge of the result of the measurement for determining the ratio of liquid to solid particles contained in the precipitation; and knowledge of the result of the measurement for determining the current amount of ice contained in the precipitation.

16. (Currently Amended) A method according to claim 15,
~~characterised in that~~ wherein the risk is calculated and shown as a
holdover time.

17. (Currently Amended) A method according to claim 15, ~~and~~
wherein manual tables are used to estimate holdover time, wherein the
tables are grouped according to different types of precipitation,
~~characterised in that~~ wherein the knowledge of the current amount of ice
contained in the precipitation and the ratio of the precipitation of solid to
liquid particles is used for defining the type of precipitation.

18. (Currently Amended) A method according to claim 15,
~~characterised in that~~ wherein the concentration and anti-icing liquid is
determined as a function of holdover time and the measured risk of ice
deposition.

19. (Currently Amended) A method according to ~~any one of~~
~~claims 1-18, characterised in that~~ claim 18, wherein an expert system is
used for the calculations which is configured for being run on a computer
and configured for being able to estimate the risk of ice deposition on the
basis of measurements, and configured for receiving information about
the actual amount of ice accumulated, and, on the basis of the difference
between the calculated and actual amount of ice, adjusting parameters in
a calculation model for calculating the deposited amount of ice.

20. (Currently Amended) A method according to claim 19,
~~characterised in that~~ wherein the computer is caused to be in

communicative connection with other computers that are located in geographical different places; and that the expert system is configured for calculating in advance future changes with regard to the risk of ice deposition in response to meteorological parameters entered therein.

21. (Currently Amended) An apparatus for ~~exercising the method according to claim 1, characterised in that the apparatus comprises~~ determining a risk of ice deposition due to precipitation which comprises a combination of optical means for measuring the reflectivity of precipitation; ~~and,~~ mechanical means for moving a measuring surface element in relation to the air and for measuring the amount of ice accumulated on the surface element during a given period of time~~[[÷]]~~, and electronic means for combining said measurements.

22. (Currently Amended) An apparatus according to claim 21 and for the calculation of holdover time for anti-icing liquid, ~~characterised in that it comprises~~ comprising a data storage device for storing information about empirical values for holdover time as a function of type of precipitation and the concentration of the anti-icing liquid.

23. (Currently Amended) An apparatus according to claim 21, ~~or 22, characterised in that it comprises~~ comprising a mathematical model for estimating the ice deposition due to precipitation; and that the electronic means are configured for comparing the estimated values to the actually measured values for the amount of ice and for adjusting parameters in the model for optimisation thereof.

24. (Cancel)